Fisheries Research in the Southeast Region
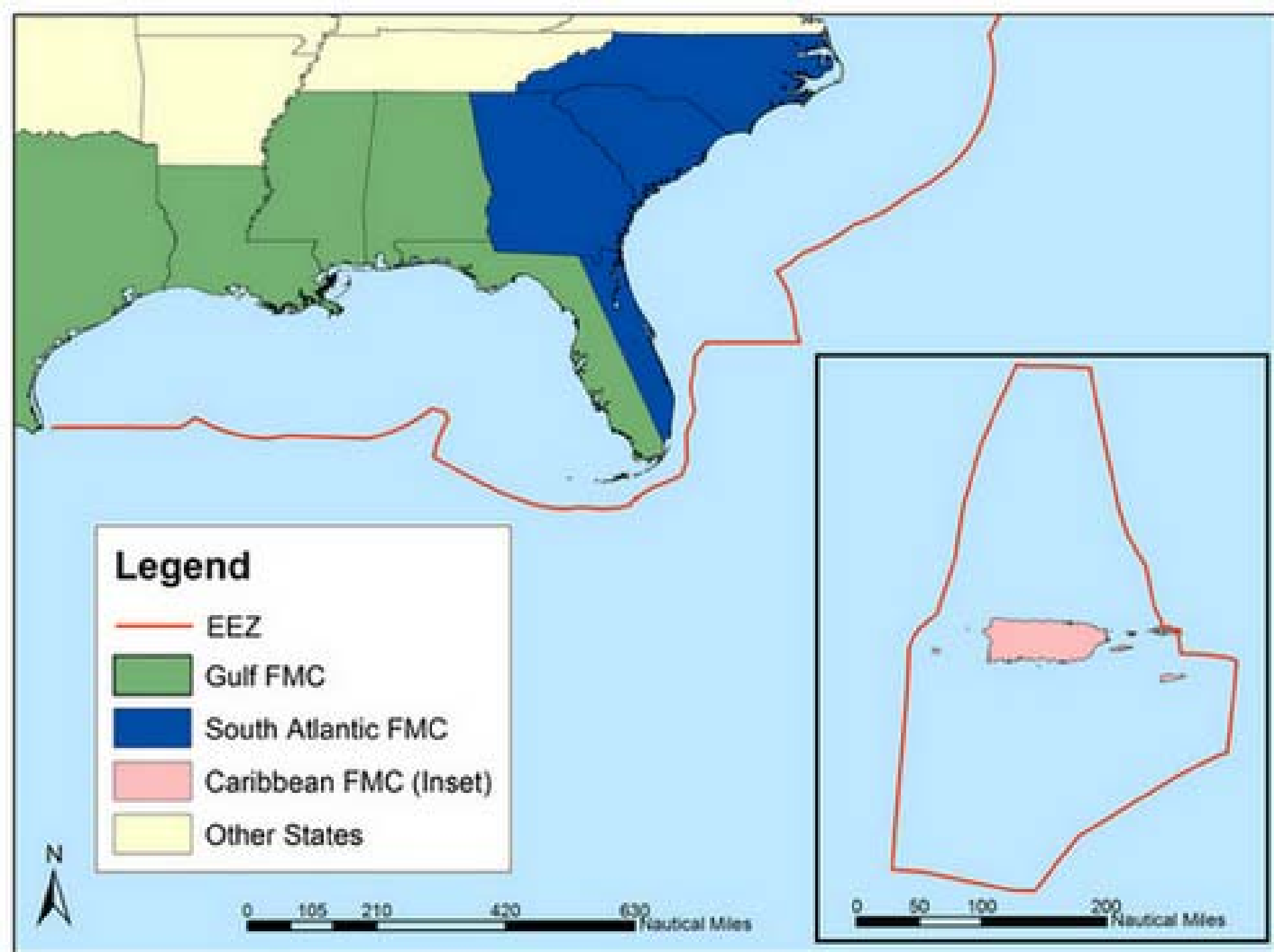
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Who Are We

- Federal Government
- Department of Commerce
- National Marine Fisheries Service
- NOAA Fisheries
- Southeast Fisheries Science Center
- Social Science Research Group
- Applied Anthropologist

Where are We

- Washington D.C. – Headquarters
- Regions all over the United States
  - St. Petersburg, Florida – Regional Office
  - Miami, Florida – Southeast Fisheries Science Center
  - Beaufort, North Carolina – Beaufort Laboratory
- South Atlantic Council
- Gulf of Mexico Council -- No Anthropologist
- Caribbean Council

Legend

— EEZ

▇ Gulf FMC

▇ South Atlantic FMC

▇ Caribbean FMC (Inset)

▇ Other States

N

| 0 | 105 | 210 | 420 | 630 |
Nautical Miles

| 0 | 50 | 100 | 200 |
Nautical Miles

What Do We Do

- We are responsible for the FMPs – social impact analyses
- We are responsible for developing research that can be used to assist management
- We bridge the gap between the sciences, sometimes creating extreme aggravation.

Connection Between Humans and Marine Ecosystems

- Managing Sustainable Marine Ecosystems should be viewed as a multi-disciplinary effort, including principles of conservation as well as utilization.

- In order to do this, biological, economic and social data are needed, especially if managers are attempting to assess the current condition of the fishery and the potential impact of future regulations.

- Community profiling is the most effective strategy for acquiring the necessary social data.

Legal Instruments Requiring Social Impact Analysis

- Magnuson-Stevens Fishery Conservation Management Act; National Standard 8
- National Environmental Policy Act
- Executive Order 12898; Environmental Justice
- National Coral Reef Conservation Act
- Ultimately these instruments recognize the need to understand the potential social and economic impacts of a regulation. The purpose is to provide managers with the understanding of how certain management scenarios will positively or negative impact humans and the resources, hence the "trade-offs" as Orbach (2003) suggests.

Methods (Primary Data)

- Interviews on a variety of issues related to fishing and community development
  - Formal and informal interviewing techniques
  - Individual and group (focus group)
  - In-depth key informant
  - Oral histories
- Cultural Mapping
- Community Photography
- Formal Survey: Standardized collection of quantitative and qualitative data to be compared across the region and time

Methods
(Secondary Data)

- Census and Department of Labor Information (Looking specifically at trends or significant changes in the following kinds of variables)
  - Population increase or decrease
  - Ethnicity
  - Age
  - Education
  - Income
  - Employment
  - Industry
  - Housing Use and Value

Methods (Secondary Data)

- Fishery statistics on number of licensed commercial fishermen, gear and species landed and sold.

- GIS Mapping
  - Mapping locations of fishermen
  - Mapping locations of markets
  - Mapping locations of ports
  - Mapping locations of fishing activities

Community Profiling

- Identify fishing communities and their level of engagement and dependency on all kinds of fishing and activities associated with fishing.

- Describe Fishers: Who, why, where, what, when and how of fishing

- Identify the social and economic networks impacted by fishing, i.e. processors, marketers, bait shops/tackle, restaurants, hotels etc.

- Identify non-fishing related factors that affect fishing – Gentrification, mangrove deforestation, coastal development, pollution and agricultural run-off

- Local knowledge about the resource: Creating comanagement or at least some level encouraging participation of fishers in the management process

Identifying Current Fishing Communities and Their Level of Dependency and Engagement

- Fishing communities have a specific definition however the line between what constitutes a fishing community is still subjective.

- It is based on the difference between dependency and engagement, which also have specific definitions but are subjective in the manner in the way some communities are placed into one category or the other.

- Currently, the social scientists at NOAA Fisheries have been working on a standardized set of variables and a mechanism for weighting these variables in the classification of fishing communities with regards to dependency and engagement.

- Dependency and engagement can best be described in an example comparing two United States fishing ports, Wanchese, North Carolina and Atlantic City, NJ

Fishers

- Who
  - Who are these people, native or non-native
  - Who are the crew – what is the relationship between owner/captain/crew
  - Gender -- are there specific sectors of the fisheries that are dominated or controlled by men or women. For example, catching fish as opposed to marketing them
- Why
  - Why do people fish – income, pleasure, food
  - Why do people engage in fishing rather than pursuing to other economic opportunities or what other opportunities do they pursue in addition to fishing
  - Why do they select the targeting strategies they do

Fishers

- Where
  - Where are people fishing, checking seasonal variation and adaptation to ideal and inclement weather conditions
  - Where they live, dock, land and market fish
  - Where do the fish go after being sold
- What
  - What do they fish for
  - What gear do they use
  - What is their economic impact within the community– are they distributing/consuming fish locally or is it leaving the community
  - What types of things do they do to protect the resources
  - What are the major policies that impact the way they fish

Fishers

- When
  - When do they fish: Annual Round
  - When do they engage in other income generating activities
  - When did they begin fishing
- How
  - How do they handle conflicts; personal, gear, or otherwise
  - How do they adapt to changes in the environment
  - How do they respond to changes in the community, i.e. increased development, tourism, gentrification, employment opportunities
  - How do they cooperate with one another; i.e. information sharing
  - How are they involved in the policy process
  - How do they perceive the future of fishing

Identification of Social and Economic Networks

- Directly Impacted
  - Family: work, income, food sharing, risk
  - Community: work, income, food sharing, fishing associations, marinas
  - Occupational: processors, marketers, distributors, various suppliers (bait/tackle/supplies), fishing associations, clientele (for hire industry)

Local Knowledge and Policy

- What are the benefits for including local knowledge in creating sustainable fishery management

  – Often fishers knowledge of an ecosystem is based on the accumulation of multiple generations of use and observation
  – Historical account of changes in the fisheries as well as the environment, and how people have adapted to changes.
  – Historical account of management and its effectiveness on creating a sustainable fishery

Local Knowledge and Policy

- Knowledge of what types of management measures are likely to be culturally appropriate and adhered to by fishermen
- Most fishers experience is based on a multi-species perspective, which mean that they are sometimes better able to see how regulatory change in one fishery will affect another. In these instances they can often develop recommendations for how best to manage the fishery that might not have been thought of in the single species approach to management
- The best perception of how various management options may impact fishers, the community and the fishery

So What Can You Do

- Research opportunities to assist with community profiling
- Research opportunities to work specific regulations
- Opportunity to develop your own ideas and get support from NOAA fisheries
- Make sure to take advantage of your methods courses